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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/926,146	11/05/2001	Hisayoshi Ito	213630US3XPCT	2530

22850 7590 11/09/2005

OBLON, SPIVAK, MCCLELLAND, MAIER & NEUSTADT, P.C.  
1940 DUKE STREET  
ALEXANDRIA, VA 22314

EXAMINER
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KUHNS, SARAH LOUISE

ART UNIT	PAPER NUMBER
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1761

DATE MAILED: 11/09/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

## Office Action Summary

Application No.

09/926,146

Applicant(s)

ITO ET AL.

Examiner

Sarah L. Kuhns

Art Unit

1761

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

### Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

### Status

- 1) ☒ Responsive to communication(s) filed on 05 October 2005.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

### Disposition of Claims

- 4) ☒ Claim(s) 1-7, 9-13 and 16-19 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1-7, 9-13 and 16-19 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

### Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

### Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some \* c) ☐ None of:
- ☐ Certified copies of the priority documents have been received.
  - ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
  - ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

### Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftperson's Patent Drawing Review (PTO-948)
- 3) ☐ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)  
Paper No(s)/Mail Date \_\_\_\_\_
- 4) ☐ Interview Summary (PTO-413)  
Paper No(s)/Mail Date. \_\_\_\_\_
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other: \_\_\_\_\_

## **DETAILED ACTION**

The text of those sections of Title 35, U.S. Code not included in this action can be found in a prior Office action.

### ***Claim Rejections - 35 USC § 102***

Claims 1-3, 9, 16 and 18 are rejected under 35 U.S.C. 102(b) as being anticipated by Robertson et al., U.S. Patent 3,733,702.

In regard to claims 1-3, 9 and 18, Robertson discloses a stirred tank comprising a tank body having a substantially cylindrical shape with a bottom portion having an inverted cone shape, a jacket disposed on a periphery of the tank body (column 1, lines 66 - column 2, line 14) and a stirring impeller made up of vertically oriented surfaces with no slant surface, having a shape and size varied in a vertical orientation, which variation achieves vertical flow, and positioned within the tank body of the stirred tank and so constructed that a maximum diameter of a rotation body defined by the rotation of the stirring impeller is effective to "sweep almost all the volume of the tank" (column 1, lines 37-42), and the rotation body extends "substantially from the bottom to above the liquid level of the tank" (column 3, lines 23-27), which the Examiner interprets to fall within the claimed diameter and height ranges.

In regard to claim 16, Robertson discloses the stirring impeller having no hole or opening (see figure 1).

***Claim Rejections - 35 USC § 103***

Claims 4-7, 10-13, 17, and 19 rejected under 35 U.S.C. 103(a) as being unpatentable over Grylls et al., U.S. Patent 4,188,407, in view of Robertson. Grylls discloses a method including storing a part of a yeast slurry discharged from fermentation tanks where been is fermented in a stirred tank and then returning the part of yeast slurry from the stirred tank to the fermentation tanks for reuse (column 3, lines 41-55). Grylls does not disclose a tank with an inverted conical bottom or the specific dimensions of the impellor claimed. However, Robertson discloses a tank with the claimed proportions, as discussed above. It would have been obvious to one of ordinary skill in the art to utilize the tank of Robertson in the process of Grylls because the Robertson tank is also directed to a method of processing an edible product that is fermented using a fungal culture and provides more complete stirring of the fermenting material.

***Response to Arguments***

Applicant's arguments with respect to claims 1-7, 9-13 and 16-19 have been considered but are moot in view of the new ground(s) of rejection.

***Conclusion***

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Sarah L. Kuhns whose telephone number is 571-272-

Art Unit: 1761


1088. The examiner can normally be reached on Monday - Friday from 8:00 am - 4:30 pm.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Milton Cano can be reached at 571-272-1398. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

SLK

11-7-05

  
HELEN PRATT  
PRIMARY EXAMINER